

**Hon. Richard Neufeld, Minister of Energy, Mines and Petroleum Resources**

**Kelowna Chamber of Commerce**

**March 3, 2006**

Good morning to everyone from Kelowna – Lake Country. It is a pleasure for me to be here. I bring greetings from Premier Gordon Campbell to each and every one of you. I'm looking forward to this tour today. I certainly have been trying to get here for awhile. Finally, we were able to work it into the schedule and to work with people here to make sure I get around to seeing the great things here to see. And briefly talk to you at the Chamber.

Before I go on, I have a number of my colleagues here, your MLA Horning who was introduced earlier. We have the Deputy Speaker here, Sindi Hawkins, a great friend of mine. She and I have spent quite a bit of time in the Legislature. We also have another Minister here: Pat Bell, he's dressed up ready to go on some snowmobiles later today. It's great to have him here.

Also, I met a friend, someone I haven't seen for a long time, she came up and introduced herself to me, Carol Gran, one of your councillors. It's great to see you again.

How can I miss the Minister of Environment? Actually I was looking around the room for someone who was working two Blackberries! Let me qualify that. Everyone packs a Blackberry now. We have a number of people in our caucus who really, really love them, I tell you, Barry is one of them. He has one for his right hand, and he has one for his left hand! Barry, it's good to have you here.

It's good to speak to the Chamber. I was active in my Chambers, both in the communities of Fort Nelson and Fort St. John in my constituency for many years and I always enjoyed working with the Chamber. It's great to see so many of you out here so early in the morning to listen to a speech. It's certainly kind of you to come out. I always remind my colleagues that although it's early here – eight o'clock, where I live, it's nine o'clock and the morning is half gone.

I'm here to do some exciting tours this morning – projects that show the City of Kelowna is a real leader in alternative energy and energy efficiency. FortisBC and our ministry, the Ministry of Energy, Mines and Petroleum Resources are participating in projects that affect people in Kelowna which can serve as templates for communities around the province.

One of the projects is over at the landfill site where you can produce electricity from methane gas. As I understand it they are installing two new microturbines. The City of Kelowna and FortisBC are partnering together in this innovative project. Your Worship, Mayor Shepherd, it's good to see that your community is participating in more ways than just producing electricity from landfill gas.

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I'm going to visit the Wilden subdivision, featuring highly energy efficient homes with geothermal heating and cooling technology, something all of us need to start looking at more carefully. FortisBC and our ministry are participating in energy efficiency programs as John outlined, to build energy efficient homes that will provide increased comfort, air quality in the home as well as savings in energy bills. I encourage you to take a look at the ministry's and Fortis' websites for those programs.

After that, we'll visit Trak Canada, an award-winning company in geothermal technology. And I'm looking forward to that as well. One of the reasons is that I collect antique cars and I am thinking of building a shop in Fort St John, and I'm looking seriously at using geothermal technology.

The things that are happening in your city are cause for celebration, including your 100<sup>th</sup> Anniversary. I have experienced a few birthdays myself, obviously not that many, Sindi a few more than me!

In northeastern British Columbia where I come from, the three largest communities in my constituency – Fort St John, Fort Nelson and Hudson's Hope all celebrated their 200<sup>th</sup> Anniversary this last summer. Northern British Columbia has a long, long history.

You have much to think about as you envision the future of your community. I know that Mayor Shepherd spoke a few weeks ago about Sustainability. I think that's great. We need community leaders out there talking to other people around the province about sustainable communities. It's important for all of us to consider this issue as we move forward. John talked about the consumption of electricity and our energy and how we have to start looking more carefully at how we consume those valuable assets in the province of British Columbia so we have a sustainable future for our children who are coming.

I'll talk just briefly about the ministry and the parts we are responsible for, a bit about energy. People confuse energy sometimes. I'm not saying you folks do. I read newspaper columns and listen to radio programs and they do confuse energy a bit. I relate energy to electricity and how it impacts our daily lives and how it impacts our environment in this great province where we live.

We are responsible for ensuring safe and environmentally responsible development of all our resources, energy, mines, minerals and petroleum resources for the advantage of all British Columbians. I'm going to talk a bit about Alternative Energy. That is one of the main reasons I am here today. A big part of my ministry has to do with alternative energy. The ministry has staff that work on a constant basis with industry on hydrogen and fuel cells. You should know British Columbia is a world leader in the development of hydrogen fuel cells, and its leadership is well recognized in the world. Our ministry works collectively with the industry – in fact we are looking at developing what we call, a Hydrogen Highway. There are sites for refuelling from Vancouver, Victoria to Whistler for 2010. Now that's a huge undertaking because along with that goes the purchase of

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hydrogen fuel buses, but it's a start and it's something that we have to do. And in fact we will be part of the United Nations forum in June that is held in Vancouver where we will talk a lot about alternative energy, specifically hydrogen. We also participate with Ford Canada, the ministry and the government of British Columbia and Fuel Cells Canada in a program where there are five Ford Focus fuel cell vehicles in Vancouver and Victoria right now. They are testing them, and will test them for another five or six years to see how well they run. They are powered by Ballard fuel cells. In fact, I was fortunate enough to be at the launch of that program and was able to drive one of the cars. It is a great program; I believe it is a \$10 million program.

We have energy efficiency building standards in my ministry that we are responsible for. We hope these standards are standards that people will begin using when they build their homes as we move forward into the future. At some time in the future, we will actually put into place regulations that will actually regulate some of these standards to be put in place when new homes are built: windows, doors, insulation; all the standard things that we take for granted. But let me tell you, when we go around the province and see and hear what happens, there is a hodge-podge of how that is handled in the province. We need to save every bit of energy we possibly can. Conservation should be the first thing we think about when we think about energy, regardless of what kind of energy it is.

In that branch of the ministry, we also look at other sources of alternative energy like wind, solar, and tidal. In fact we are working with some companies and the University of Victoria on a tidal project at Race Rocks just off Vancouver Island. We are also working hard on clean coal technology as we move forward, it's a huge resource in coal that we have in the province of British Columbia. If we are going to use hydrogen for our future we are going to have to look at a fuel to actually make hydrogen. Just look out there, you can't just go out there right now and get it. It comes from fossil fuels so clean coal technology is very important not only to British Columbia but to the world as a whole. I think about 40 per cent of the world's electricity generation is coal, so there is a great need to look at how we deal with greenhouse gases, particulates and all the things that go along with the generation of electricity by coal.

My ministry is also responsible for a number of Crown Corporations: BC Hydro, BCTC, the British Columbia Transmission Corporation and Columbia Power Corporation. Those are the crowns I am responsible for. Your area is served by Fortis, and I think Fortis is doing a great job. Congratulations on your first year here, John and to rebuilding a system that was left to disintegrate for awhile and I know you have some of the same challenges as we have.

Our hydroelectric system in British Columbia is the envy of the world. A person I'm sure all of you are familiar with is W.A.C. Bennett and we should be thanking him and the people that were around him for the vision that they had many years ago for the hydroelectric system in the province of British Columbia because it has served us well and it will continue to serve us well. We still have the third lowest hydro rates in all of North America. In fact, we'll go to the second lowest rate very quickly once Quebec Hydro puts in its last cost increase. I'm very thankful we have this, but it has also brought

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some problems. We have low electricity rates as everyone will agree but there isn't an actual trend to conserve energy. I think you'll go to some states where the cost on energy, like in California, is two and a half times the rate we pay here in British Columbia, they conserve. When you go to Europe, and you see prices as high as 24 to 25 cents per kilowatt hour compared to ours which is just under seven, let me tell you, they conserve. That's why you always see the stats that show we consume so much.

Well part of the problem is that here in British Columbia we have a very great system that serves us well with low cost electricity. That also helps us build our industry, creates jobs across the province. It created a huge surplus, when the dams were built on the Peace and the Columbia. The last big project that was built was in the mid 1980's and there has been some small projects built since then but not an awful lot because we had such a big surplus. So most people say we export a lot of electricity to the United States, that we just have an abundance of electricity. John talked a bit about it earlier. That's not true anymore.

British Columbia has grown in population and consumption, we have grown in industry and we are now net importers of electricity, most from the United States. Actually in 2004 - 05 we imported about 12 per cent of our needs. That is about 6900 gigawatt hours. That's enough electricity for 690,000 average homes for a whole year. So we do have to look carefully at what we are going to do to get us back to a place where we are at least, self-sufficient in this province, or actually have some excess of electricity which we can sell into the markets and benefit British Columbia that way. But we have to be careful about getting out a lot of excess electricity because if we want to sell our excess of electricity and everyone else has an excess of electricity, that drives the rates low. It's a market based system. We continue to trade with the U.S. and BC Hydro trades an awful lot of electricity through Power Smart. That trade is done on peak and off peak hours. We release some water from the dams that goes into the U.S. in peak hours in the morning and evening. We get a good rate for it because it's market-based. And then at night time, their own generators produce electricity very cheaply. That benefits all of us in the province by about \$150 million a year, on the average, at peak rates.

Our consumption today is about 58,000 gigawatt hours of electricity. It is anticipated that will grow just under two percent per year given the growth we have now. Last year we had a consumption rate of just a bit more than two per cent, but on the average, if you look over the last twenty years, it grew at about two per cent a year. So, what have we done to meet that demand since we became government?

Hydro has contracted with independent power producers for about 5,000 gigawatt hours of electricity in the last five years. I might add that the Energy Plan in 2002 instructed Hydro to start contracting with independent power producers around the province and it has been very successful. It had a rocky start I can tell you because there was not a built up community base for independent power producers in the province of British Columbia, but it's getting bigger and it's getting stronger. So, 5,000 gigawatt hours. It may not mean a lot to you, but I want to put that into perspective. Site C which you hear about very often, a huge dam on the Peace River would generate just under 5,000

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gigawatt hours. So what Hydro has actually contracted for in the last five years is one Site C. Those come from all kinds of small projects; those are biomass, landfill gas, and run-of-river hydro. Hydro thought they had one wind farm that was going to become commercial. It didn't. I'm sure in the next call that Hydro makes, it will become commercial. So there's going to be some consequences and some choices that we're going to have to make in the future. If you look at the growth rate I talked about in the next twenty years, we're going to need about 24,000 gigawatt hours if you take average water. If you use critical water in our dams, we're going to need closer to 30,000 gigawatt hours over the next twenty years, just to be self-sufficient, just to have a little excess of electricity. So there's going to be some tough choices to make.

One other thing that I think people forget when they talk about electricity generation is that we have one of the cleanest systems. It's environmentally friendly. Hydro generation is environmentally friendly. Obviously it has an effect where the dams are on the land base. There are no greenhouse gases. It is clean green energy. Ninety per cent of our energy in the province of British Columbia comes from clean sources, from BC Hydro.

Mining is a big part of my ministry. It's huge. It has taken off in the last three years. Industry has confidence again in the province of British Columbia because of some of the initiatives that we took as a government. Minister Bell, before becoming Minister of Agriculture and Lands, was the Minister for State and Mining. He and I worked together to make sure that things happened so that industry wanted to invest again in this province. I would encourage you sometime, now Minister Bill Bennett is the minister for mining and he is doing a great job as Pat did. I would encourage you to have Bill come to speak sometime about mining in British Columbia.

I want to talk briefly about oil and gas – obviously, a big part of our economy. Most of the oil and gas we produce now is produced in northeastern B.C., east of the Rockies. Where I live, it's the only part of British Columbia that is east of the Rockies and is part of the Western Sedimentary Basin that covers all of Saskatchewan, Alberta and into the U.S. and up into the Yukon and into Alaska. It's a huge sedimentary basin and it's very rich in resources through that whole area and especially in northeastern British Columbia. In fact, this last year oil and gas royalties and land titles brought the province \$2.8 billion. Two-point-eight billion dollars – that's a lot of money. And it goes a long ways to providing a lot of services to a lot of people, whether it's health care, education, services for children and families, for all of us to continue to have this great wonderful province that we have.

We produce one tcf of gas a year, one trillion cubic feet, and about 13 million barrels of oil. We consume about forty per cent domestically. The rest is exported to other parts of Canada and to the United States. We consume 65 million barrels of oil, so we consume an awful lot more oil than we produce in British Columbia and there are some that think this industry isn't going to be around for very long. I disagree. We've talked to Geoffrey Ballard who will tell you we will be using petroleum products for many decades into the future. We will use them differently than we did twenty years ago and we will use them differently than we do today. But we will continue to use petroleum products well into

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our future. We drill approximately 1400 wells a year in northeastern British Columbia. Compare that to Alberta, and I'm sure some of you have read in the newspapers about the surplus in Alberta. I believe the last I saw it was about \$7 billion in unanticipated revenue. They produce about six times as much gas as we do; it's about \$10 billion. Just imagine. They have no debt. Their debt is paid off.

I met with the Ambassador from Kuwait just yesterday, a country of just over three million people. Their Public Works spending on a yearly basis is between \$90 and \$120 billion per year. On top of that, they put money away in a fund for future generations. It's absolutely unbelievable. Although prices for oil are really high and that's all they produce, that price will come down again, very likely. They tend to do that. But still when you think of the benefits, when I say \$2.8 billion in the province of British Columbia, it's significant.

So you hear people out there who say, oh those Americans. We should turn off the switch for electricity and shut the big valve where we send all that natural gas in. Well first off, we have to figure out which days we want our electricity off because we have to get it from somewhere. We're getting some of it from the United States right now. Secondly, if you want to take about 16 per cent of that production out of British Columbia, just subtract 16 per cent from the \$2.8 billion. That is just revenue generated from wells from leasing, its got nothing to do with other taxes that comes in. Communities in northeastern British Columbia are actually booming, they're expanding. This last year, about 500 new businesses were created between Dawson Creek, Fort St. John and Fort Nelson. I'd say most of them in relationship with the oil and gas industry. but some of them with the forestry industry which is very important to northeastern British Columbia. In fact, the largest oriented strand board plant just went into production here about a month ago.

So the other thing we have here in British Columbia is our natural gas reserves, even though we are producing marginally more and drilling wells on a constant basis, our production is actually increasing. If you look at Alberta, they are producing more than what they can actually rediscover. We've discovered more than what we are producing. That's been for the last seven years. There are very few jurisdictions that can say that. We have some huge opportunities up here. I think 26 to 45 trillion cubic feet in northeastern British Columbia. New research, new kinds of gas, new technology is coming around in the way we go for it, the way we produce it. Costs will be increased somewhat because it's a little harder to get at, it's a bit of a different gas. But we're well situated in British Columbia with a pipeline in northeastern B.C. We can ship to eastern Canada through our Canadian system or to the U.S. through the Duke Energy system, the alliance system. And the Alaska Highway pipeline could be something that is a huge benefit for the province because we could probably in fact look seriously at starting a petrochemical industry in northeastern British Columbia if and when that line goes from B.C.

We also have an LNG port that is going through the Environmental Assessment process in northeastern B.C. We also have about 85 trillion cubic feet of protected coal bed gas reserves across the province. It's a very clean burning gas, but we have to look at developing that very carefully and we've put in place in this ministry some water

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production regulations that are very stringent so we can, we believe, go out and develop that resource for the benefit of all British Columbians. We should be looking at those resources. The United States consumes about 23 trillion cubic feet of natural gas a year. Really, they produce almost all that themselves. Eight per cent of that 23 trillion cubic feet is coalbed gas so they are out there, actively drilling for it.

Pat would shoot me if I didn't talk about a couple of the other basins in the province. And that's the Bowser and the Nechako. They are basins that have not been developed although Shell has done some drilling in the Bowser Basin in the northwest part of British Columbia. There's some coalbed gas and they are now actively working with the Tahltan looking at doing some more drilling. Also in the Nechako, a lot of that is where Pat's responsibilities lie, Prince George, south of Williams Lake and Quesnel. Between those two basins, is expected to be about 17 trillion cubic feet of natural gas and about eight billion barrels of oil. That's an awful lot of petroleum products that we can't just take for granted and leave there. We actually have to look at it. We are doing a lot of work through Geoscience B.C. looking at the Nechako Basin and trying to encourage industry there.

One of the other huge resources we have is offshore. And that's the possibility of 42 billion cubic feet of natural gas and 10 billion barrels of oil – valued at well over \$200 billion dollars. Something we're actively looking at and I know we're working close with the new government in Ottawa on how we actually move that project forward. We've done a lot of work on offshore oil and gas in our ministry over the last four or five years. It has been done and is being done around the world in an environmentally safe way.

Oil and gas will continue to power our economy, and plays a big part in us continuing to live our lives the way we do. When we stop to pick up a litre or jug of milk, we have to remember that plastic comes from natural gas. Even some of the coats you're wearing when you're out snowmobiling, you'll probably have a jacket on that has some products in it that come from natural gas.

We consume it folks, on a daily basis. And we should be able to produce that resource on a daily basis for our consumption and still actually respect our environment if we possibly can. I know Minister Penner keeps us on our toes about that.

We need folks like you to continue to talk to the public about consumption. We need to think about conservation – I want to stress that. Conservation is a big issue in new electricity generation and in fossil fuels and that's going to be our key cornerstone in our new Energy Plan that we're developing and that we hope to be releasing in 2006.

We need to pick up and get going with independent power producers in British Columbia to help meet our needs. We have to do this in an environmentally and sound, safe manner. We will do that working with the Ministry of the Environment.

Thank you very much for listening to me.